## Written Direct Testimony of Kū Kahakalau, Ph.D.

Aloha, I am Dr. Kū Hinahinakūikahakai Kahakalau.

I was born in Honolulu, but have lived in Kukuihaele on Hawai'i Island since 1991. My grandfather was William Keahonui Kahakalau. He was pure Hawaiian, born and raised in Kalihi, a native speaker of the Hawaiian language, and a talented Hawaiian musicians, entertainer and teacher. My Hawaiian family comes from the islands of Maui, Moloka'i, O'ahu and Hawai'i Island.

I am a native Hawaiian educator, researcher, scholar, composer and recognized expert in Hawaiian language and culture. I hold a Bachelor's in Secondary Education and a Professional Diploma in Hawaiian Language, and a Master's Degree in European Languages and Literature (focusing on German literature about Hawai'i). Moreover, I am the first person in the world to earn a Ph.D. in Indigenous Education. I have over 30 years of experience teaching Hawaiian language, history and cultural studies to learners of all ages and levels, in and outside of the classroom. I have developed and implemented multiple educational pilots and spent over two decades researching the impact of Hawaiian-focused education on native learners. I have lectured all over the world on diverse aspects of Hawaiian language and culture revitalization through culturally-driven models of education. I am also an active community leader, serving on multiple non-profit boards, representing Hāmākua for eight (8) years on the Hawai'i Island Burial Council and currently serving as chair of the Hawai'i County Board of Ethics.

I began to pursue my academic study of everything Hawaiian in 1981 at Kapi'olani Community College (KCC). I literally took every college class with the word "Hawai'i" offered then at KCC and later at UH Mānoa. More importantly, I spent countless hours learning from esteemed kūpuna, many of whom were mānaleo, or native speakers, from Ni'ihau to Ka'ū about our language, our values, our daily practices and protocols, and our traditional ways, including our spiritual practices. In fact, my husband and I base our personal family practices on the mana'o shared with us by highly knowledgeable kūpuna and cultural experts over the past three decades. In addition to kūpuna teachings, our practices are informed by primary sources like Malo's Hawaiian Antiquities, which we have studied extensively individually and in various high level groups.

As cultural practitioners, our family regularly engages in Hawaiian ceremonies and protocol and we have raised our two daughters in these traditions, which include daily family protocols, healing rituals, monthly ceremonies based on the moon cycle, multiple yearly makahiki and other ceremonies like house blessings, graduations etc. We have shared these practices with interested learners from youth to elders, and spearheaded a Hale Mua for kāne and a Hale Papa for wahine, focusing on our roles and responsibilities as kāne and wahine.

I am currently Program Director for Organizational Capacity at INPEACE, a Hawaiian non-profit organization headquartered in Kapolei, as well as CEO of Kū-A-Kanaka, a native Hawaiian social enterprise providing Hawaiian language and culture products and services, educational consulting and research and evaluation for Hawaiian-focused and other Indigenous programs.

I am also the founder and former director of Kanu o ka 'Āina New Century Public Charter School, Hālau Wānana Indigenous Center for Higher Learning, Mālamapōki'i Early Childhood Program, the Kanu o ka 'Āina Learning 'Ohana and Kauhale 'Ōiwi o Pu'ukapu, all located in Waimea on Hawai'i Island. This family of programs is grounded in a Pedagogy of Aloha, which I developed as part of my doctoral research in Indigenous Education. This Pedagogy is also known as Education with Aloha, or EA and has been documented to bring about significant, positive changes for Hawaiian K-12 students. Specifically, providing not just Hawaiians, but all who are interested, a solid grounding in native Hawaiian language, culture and traditions has shown increased socio-emotional well-being (e.g., identity, self-efficacy, social relationships), increased math and reading test scores, particularly for those with low socio-emotional development, significant increases in graduation and college going rates, impressive student and parent satisfaction, significant decreases in absenteeism, and an exceptional commitment to being responsible 21st century global citizens, evidenced by helping others, protecting the environment and making the world a better place.

Over the years, I have received many awards including the Order of Princess Pauahi from the Kamehameha Schools. This is the highest and most distinguished award given to those whose extraordinary lifetime contributions have positively impacted the Hawaiian community and who exemplify the values and vision of the Princess Bernice Pauahi Bishop.

As a native Hawaiian practitioner, and award-winning educator and community leader, I do NOT support the construction of the TMT on Mauna Kea. I base my stand first and foremost on the value of aloha 'āina and mālama 'āina, a way of life taught to me by my 'ohana and shared by all of my kūpuna mentors from Ni'ihau to Ka'ū. In fact, based on my research, I can say that here in Hawai'i, the ancient practice of aloha and mālama 'āina, documented in countless oral and written Hawaiian sources, is essentially a law of the land.

It is also the essence of our native spiritual expressions, since, as you may know, Hawaiian religion and spiritual practices are land based. This means that sacred places are at the core of our native beliefs. In fact, they are the centerpiece of our creation stories and oral histories, passed down through generations. It is these histories and sacred places that tie each generation to our ancestors and our land and form the central bonds of Hawaiian culture and identity.

Sadly, because our understanding of the sacred varies with our experiences and upbringing, the concepts of aloha and mālama 'āina are often incomprehensible for people with a history of expansionism, fueled by a religion instructing them to "subdue the earth" and use it as a commodity to be exchanged for profit at every opportunity. This explains why those who push for the construction of the TMT and many who currently have decision making powers in Hawai'i, like this court, struggle with understanding that for Hawaiian practitioners like myself the 'āina (the environment) is literally and genealogically 'ohana, to be loved, to be respected, to be protected and to be cared for at the highest level.

This goes for all land. However, this responsibility to love, protect and take care applies to an even greater extend to 'āina designated as "special" by our kūpuna. Based on a mele hānau, or birth chant for Kauikeaouli, Mauna Kea, Mauna a Kea, or Mauna a Wakea - all of these names can be used interchangeably – is such an entity, a sacred child of the highest birth. The chant states, "'O hānau ka mauna a Kea, 'ōpu'u a'e ka mauna a Kea 'O Wakea ke kāne, 'o Papa, 'o Walinu'u ka wahine. Hānau Ho'ohōkū, he wahine. Hānau Hāloa, he ali'i. Hānau ka mauna. He

keiki mauna na Kea." This primary source substantiates that Mauna Kea is a child of the gods, it's not just a mauna, or mountain, it is an ali'i, a chief, it is an akua, a god, it is sacred.

While the entire mountain, as a first born, has a unique, special status for culturally-connected Hawaiians and exudes mana, Mauna Kea's summit, based on what I was taught, as the highest peak not just in Hawai'i but the entire Pacific, is also clearly a Wao Akua. A Wao Akua, versus a Wao Kanaka, is reserved for deities and spirits and should only be accessed for specific, always and only spiritual practices, involving special protocols. On Mauna Kea, some these practices include depositing a child's piko, or the bones of a beloved person, engaging in the worship of various Mauna Kea deities, and other native Hawaiian spiritual expression.

The special mana of Mauna Kea can be felt by all whose ancestral gauges are calibrated correctly. In fact, this super natural power is acknowledged not just by Hawaiians, but by people from all over the world, who regard Mauna Kea, and other summits of high mountains, as places that bring us more closely into connection with the spiritual world, hence Wao Akua.

So it is ludicrous to claim that because the 5 acre selected site supposedly "has no endangered flora or fauna and no known archaeological shrines or burial sites," it is ok to build a 180-foothigh observatory along with support buildings, parking, roads, etc. on the summit of Mauna Kea, an area clearly designated as sacred by our Hawaiian kūpuna and clearly still sacred today.

Moreover, the summit of Mauna Kea is not just a sacred place, but also part of the 3,894 acre Mauna Kea Ice Age Natural Area Reserve, established "to preserve in perpetuity specific land and water areas which support communities, as relatively unmodified as possible, of the natural flora and fauna, as well as geological sites, of Hawaii." Clearly the construction of the TMT will significantly modify and further disturb Mauna Kea's summit and impact the natural and cultural landscape on the mountain.

Moreover, what impacts the 'āina, or the environment, also impacts kanaka, or man. Especially children and youth are shaped based on the values and practices of the adults in their lives.

As a Hawaiian educator, I believe that Mauna Kea can and should become a local, national and international symbol of aloha 'āina, a testimony of respect for the Hawaiian culture, and a validation of our commitment to perpetuate Hawaiian values and traditions and protect the rights of native Hawaiians. By sending a clear signal to our next generation that the protection of our environment, our earth, is more important than any other endeavor, we will set a new standard in 21st century environmental protection for the benefit of both the environment and humans.

As a 21st century educator I strongly believe that tomorrow's leaders need to be equipped for tomorrow's challenges. However, merely than just adequately preparing our children for the future, we must also do our best to ensure that the earth they inherit is healthy and able to sustain them into the future. This requires a commitment to provide children not just with environmental education that helps them become the educated thought leaders of tomorrow, but also to preserve the great treasures of the earth, like Mauna Kea, not just on digital files but in all their glory, and with all their mana.

Many modern ecological scientists believe that mankind must draw on the wisdom of traditional ecological knowledge and indigenous intellectual traditions regarding stewardship of the earth to achieve our shared goals of environmental sustainability. This

knowledge base is the foundation of contemporary Indigenous models of education, which advocate a contemporary, culturally based, educational process founded upon native values – which for Hawaiians and other Indigenous peoples has always included aloha and mālama 'āina. In addition to native orientations and principles, Indigenous Education also integrates the most appropriate concepts, technologies, and content of modern education, i.e. those aspects that align with our native world view.

Over the past two decades, my husband and I have successfully incubated such an Indigenous model of education that has already impacted thousands of Hawaiian students. This model is based on our unique Pedagogy of Aloha, which is culturally-driven, family-oriented, community-based and sustainable, and aims to support all learners to reach their highest level. This Education with Aloha, or EA, as it is also known, is research based, and reflects, respects and embraces Hawaiian cultural values, philosophies and ideologies, which includes the value of mālama 'āina. Moreover, Education with Aloha integrates both ancient and modern paradigms and balances traditional practices with modern science and technology in an effort to advance Hawaiian culture and island sustainability and contribute to a positive future not just for Hawai'i but the world.

Based on the principles of Pedagogy of Aloha, building the TMT is NOT pono, or ethical, and does not demonstrate a balance of science and culture on Mauna Kea, nor a respect for Hawaiian culture, as advertised on the TMT website. Rather such desecration signifies to kanaka (native Hawaiians), kama'aina (local) and malihini (foreigner) alike that we do not value the ancient practice of aloha and mālama 'āina and that we do not respect the inherent mana of Mauna Kea and the importance of maintaining this sacredness, by adhering to the ancient kapu of the Wao Akua. It also validates for young and old that our island resources are for sale and that when enough dollars are involved, nothing is protected from development, i.e. nothing is sacred enough.

As a 21st century educator, I strongly support integrating technological advances into 21st models of education. At the same time, I also resolutely maintain that these advances must be ethical, meaning that furthering the search of knowledge for mankind, must not override protecting natural, cultural and spiritual resources from destruction. This view is in alignment with enlightened educators and thinkers worldwide who assert that Indigenous practices and values like aloha and mālama 'āina can provide new ways of educating for global ecological thinking and environmental sustainability. I propose that Hawai'i stands in the forefront of this movement by not allowing the construction of the TMT on sacred Mauna Kea.

In closing, I would like to address the proposed measures, "to respect and preserve Hawaiian culture", which include:

- an annual Cultural and Natural Resources Training Program for all TMT employees, contractors and sub-contractors to gain an understanding and respect for cultural and religious practices, which incorporates best ways in which to honor cultural practices, and instill a sensitivity to any potential negative impact on cultural resources.
- minimizing daytime activities for four days annually in observance of Native Hawaiian cultural practices, as determined by Office of Mauna Kea Management and Kahu Ku Mauna Hawaiian

- supporting chant and mele translations for teaching Hawaiian science and genealogy in Hawaii Island schools.
- creating exhibits displaying cultural, natural and historic resources that explore the connection between Hawaiian culture and astronomy.
- translating modern astronomy lessons into Hawaiian for use at Hawaiian charter schools.
- conducting tours of the observatory for the Native Hawaiian community

While these proposed measures to appease the Hawaiian community have been cited by some Hawaiians as primary reasons they are supporting the construction of TMT, the proposed measures clearly lack a commitment to Hawaiian values. In fact, they are an insult to Hawaiian practitioners and educators like myself on many levels. For example, any educator knows that any training conducted once a year is not nearly enough for any employee, contractor and subcontractor to gain an understanding and respect for any cultural and religious practices, and/or a sensitivity to the negative impacts on cultural resources. Moreover, limiting cultural practices on Mauna Kea to four (4) days out of 365 days, chosen by some agency, is a violation of the American Indian Religious Freedom Act, which "protects and preserves the inherent right of freedom of belief, expression, and exercise of traditional religions...including but not limited to access to sites, use and possession or sacred objects, and the freedom to worship through ceremonials and traditional rites."

Finally, creating educational materials and opportunities like "cultural tours" emphasizing "objective" content and experience, detached from community and violating traditional values, actually amplifies the current crisis of American education, by continuing the practice of conditioning students to exist as marginal participants and perpetual observers. It also assists in the further alienation of modern man from his own being and the natural world.

It is for us to decide what message we want to send to our children, grandchildren and the world.

- Is it that, technological advances supersede ancient traditions and values of protecting our mother earth?
- Is it that short-term approaches (current plans are to decommission the TMT after 50 years) are preferable to long-term sustainable solutions, such as airborne observatories?
- Is it that advancing the exploration of outer space is so important that it justifies the ongoing destruction of sacred Mauna Kea and the potential pollution of Hawai'i Islands freshwater?
- Is it that that spending billions of dollars for space research in Hawai'i, while the native people of Hawai'i suffer third world statistics is to our benefit?

As today's leaders and decision makers is essential that we re-examine ethically what we have inherited, what we are responsible for and what we will pass on to the coming generations. As a Hawaiian practitioner, educator and community leader and as a 21st century global citizen, I maintain that here in Hawai'i it is our individual and collective kuleana, or responsibility to maintain and advance the environmental relationship, celebrated in Hawaiian stories, visionary traditions, traditional arts, and nature-centered spiritual practices.

I believe that as 21st century global citizens it is our kuleana to do everything we can to protect our still existing natural and cultural resources. This includes not allowing the construction of environmentally and culturally catastrophic projects like the TMT.